

0280

#2

OIPE

RAW SEQUENCE LISTING

DATE: 12/14/2001

PATENT APPLICATION: US/10/006,780

TIME: 11:08:09

Input Set : A:\Seqlist.txt

Output Set: N:\CRF3\12142001\I006780.raw

ENTERED

4 <110> APPLICANT: Sakowicz, Roman
 5 Beraud, Christophe
 6 Guo, Jun
 7 Freedman, Richard
 9 <120> TITLE OF INVENTION: NOVEL MOTOR PROTEIN OF P. FALCIPARUM AND
 10 METHODS FOR ITS USE
 13 <130> FILE REFERENCE: CYTOP083
 C--> 15 <140> CURRENT APPLICATION NUMBER: US/10/006,780
 C--> 15 <141> CURRENT FILING DATE: 2001-11-30
 15 <160> NUMBER OF SEQ ID NOS: 10
 17 <170> SOFTWARE: FastSEQ for Windows Version 4.0
 19 <210> SEQ ID NO: 1
 20 <211> LENGTH: 3931
 21 <212> TYPE: DNA
 22 <213> ORGANISM: Plasmodium falciparum
 24 <400> SEQUENCE: 1

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 26 tggtagaggaa gagaccactg agcgaattag aaaagaagaa aaaagatagt gatataatta 120
 27 cagtaaaaaa caattgtacg ctttatatag atgaaccaag atataaagtg gatatgacaa 180
 28 aatatataga aaggcatgaa tttattgtag ataaaagttt tgatgatacg gttgataatt 240
 29 tcacagtata tgagaataacc ataaaaccat taataataga tttatatgag aatggttgtg 300
 30 tatgttcttg ttttgcttat gggcaaacag gtagcgggaa gacttatacg atgttaggtt 360
 31 cacaaccgta tggacagagt gatacccctg gtatatttca atacgcagca ggggatatat 420
 32 ttaccttttt aaatatattat gataaagata atacgaaagg gatattttata tcattttatg 480
 33 aaattttatt tggtaaatta tatgatattat tacaaaaacg taagatggta gcagcattag 540
 34 aaaatgggaa aaaagaagtt gtagtaaaag atttaaaaaat attaaagatg ttaacaaaag 600
 35 aagaattaat attaaaaatg atagatgggtg ttttattaag aaaaattggg gttaattcac 660
 36 aaaacgatga atcatctaga tcacatgcta tattaaatat tgattttaaa gatataaata 720
 37 aaaatacatc tcttggaata attgctttca ttgatttagc aggaagtga agaggagctg 780
 38 ataccgtttc acaaaataaa caaacacaaa ccgatggagc taatattaat agatctttac 840
 39 tagccttaaa ggaatgtatt cgagctatgg attcagataa aaatcatata cctttcagag 900
 40 attcagaatt aactaaagtt ttaagagata tttttgtagg gaaatctaaa agtattatga 960
 41 tagctaatat ttctcctaca attagttggt gtgagcaaac attgaataga ttaagatatt 1020
 42 cttcaagagt taagaacttt aaaaataaat ctacatgtat aaatgaagaa gatgatacaa 1080
 43 ataccgaaag aattagtata ttagattcaa agggaagtga aatgaatgca tctagtatag 1140
 44 aaaatgtagt tatcaaatac aatcatcttc tttcaaataa taataataat aaaatcaatc 1200
 45 gtggcaaaat taatgataag atagaaagaa ataatatctt aaaaaataaa tcttttgata 1260
 46 aacctaggga aggattcaca tcaacctttg gaaaatacag ttcacttaat gatatagaca 1320
 47 aaataaagaa aaataagaaa aagggtttta ttaattataa aagtacatta tataatgaca 1380
 48 acaccataaa taaaaagcac aacaataata ataataataa taatgataat aatgataata 1440
 49 ataataataa taataataat aataataatg atagtagtag tatggtcaat aacatgatca 1500
 50 atcatatgat caataataat attaacaaca atatcaatgt aaataacaac aataataata 1560
 51 ataataataa caataatagt cataataatc atctaccaca acccaactat gcattttaccg 1620
 52 atacatccga tttttcttcg cttgacgata tgaactgtca tttaaacaat aacgacaaaa 1680
 53 gtatttttct acacaaaaaa aatttaagag acaacattaa attgaaaaac agaagtagtt 1740
 54 gtgataacat tatgaacaag aagaaaaaca atcttcattt agctagacat agtgtcggaa 1800
 55 gtaaattaac aatgttttca tatgaccac aaaaaataa ggataataga ttttttaaaa 1860

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56 gtaatataaa caaaatggaa gataatacac ctaaggatat actatatgag tctaggaatg 1920
57 tatcgaatat gaatggtaat gttttattag ggtaaacaac gaatactcat cacgatatct 1980
58 cgacaaagga tgaaaatcat aatgataata aaataaacaac tgggtgttatt aacattataa 2040
59 ataataagtaa tgtgaatagt ataaataata gtaatatgaa tagtataaat aatagtaata 2100
60 tgaatagcaa tagtatttat aaaagtaact ataatagtaa tcagtcacata tcagatgttc 2160
61 aaattagata cgtgaacgaa atggacacta gcaataaaaa taatgacaac atattttttg 2220
62 atgctatatc atgtgataat aacatgtatc ctaataataac aaataataat aataataata 2280
63 ataataataa taataataat aataacaata ttgatgtgga gaattataat aatcgtgatg 2340
64 gtacaaataa ctctatgaag ttgtatgctt ataatagtca taacttattt caacctgata 2400
65 ataataaaaa tacatcaaac attcagaata taaatacaaa taaaaataat caagatggga 2460
66 atgtaaatga ttcaatgaat ttttgccatt ataattttaa tgataaaaaat tatttgatag 2520
67 atttaataaa taaggaacaa aaggataaaa acatacatgg atgtgacaat aatattattc 2580
68 aaaataggaa cgattttgaa aaaaagaaaa aaaccaattt ttacaataat aataatattg 2640
69 ttatagttaa taataatatg ggaaataaca atagtccccg tatgaaatat ggtttatgtg 2700
70 gtagtcatat aagtattgat aatatgaaaa ataatgaaat gaaaaataat gaaatgaaag 2760
71 ataatgaaat gaaagataat catataaaaa gtaacaataa taatagtagt agtagtagta 2820
72 gtatgaataa taatatttat aataatatta atgatgatga tacatttcaa aatgattatt 2880
73 gtcacaatga taataccttt actatttagac gaaaaaacaac tactaatata aatagtaaca 2940
74 tataccaaaa tgatgatata atttatacaa taaatagttt aaatgattat atgagcaata 3000
75 ccctgttaca ttttaaagag aaatatacat atccaacact aagcacaaat gaagatatat 3060
76 ataataaaga aatggaagga aaacatataa ggctggatga tcaagataaa tatgatgata 3120
77 atgataataa taatgttgat aataataata aaaataatgt tgataataat gttgataata 3180
78 ataatgttga taataatgtt gataataatg ataaaaataa tgttgataat aataatgttg 3240
79 ataatgatga tgatgatgta gattttcata atataaaaaa ttttaataat aatgaatatt 3300
80 ttagctactt tcaaaaaaat gtagatacaa taataaataa ttgcttaaat tcttttagata 3360
81 tttctagtat gtatgatgat acaaaaagaga tactaaataa tctctatta tctaaatata 3420
82 aagctgaaaa agataatgtt ataaaaaaat atattaatga agatataaaa aatatgtctt 3480
83 tagaagaaat cgataaaaca gctcagtcga tttatgaaaa gagaaaagta ttacttacaa 3540
84 aattattatt attattttaa aaaaatgtag atacacaaat aaataatgaa acaagtgtt 3600
85 taagaaaaga tcttgattatg tgtcacatat gtaataataa tcctgatgat caatttcatt 3660
86 tttatgcata tagtagacta gaaaaagata ttattaattt aattatgtta agacaaatat 3720
87 ggtgtgagag tgaaaactta agactcttat atcaattctt agtagtagaa tatcaaaata 3780
88 aatcagcaaa ttctgtttta ttaaatgtct cttcaaataa tggtgacatt atattactta 3840
89 ataaaaaatt ggttcaagat aacatcaaaa atttotatgga ccacaacaat atacacaaaa 3900
90 aataaagaat attaataata ataagtaaat a
3931

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92 <210> SEQ ID NO: 2

93 <211> LENGTH: 1288

94 <212> TYPE: PRT

95 <213> ORGANISM: Plasmodium falciparum

97 <400> SEQUENCE: 2

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98 Met Asn Ser Lys Ile Lys Val Val Val Arg Lys Arg Pro Leu Ser Glu
99 1 5 10 15
100 Leu Glu Lys Lys Lys Lys Asp Ser Asp Ile Ile Thr Val Lys Asn Asn
101 20 25 30
102 Cys Thr Leu Tyr Ile Asp Glu Pro Arg Tyr Lys Val Asp Met Thr Lys
103 35 40 45
104 Tyr Ile Glu Arg His Glu Phe Ile Val Asp Lys Val Phe Asp Asp Thr
105 50 55 60
106 Val Asp Asn Phe Thr Val Tyr Glu Asn Thr Ile Lys Pro Leu Ile Ile

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107 65          70          75          80
108 Asp Leu Tyr Glu Asn Gly Cys Val Cys Ser Cys Phe Ala Tyr Gly Gln
109          85          90          95
110 Thr Gly Ser Gly Lys Thr Tyr Thr Met Leu Gly Ser Gln Pro Tyr Gly
111          100          105          110
112 Gln Ser Asp Thr Pro Gly Ile Phe Gln Tyr Ala Ala Gly Asp Ile Phe
113          115          120          125
114 Thr Phe Leu Asn Ile Tyr Asp Lys Asp Asn Thr Lys Gly Ile Phe Ile
115          130          135          140
116 Ser Phe Tyr Glu Ile Tyr Cys Gly Lys Leu Tyr Asp Leu Leu Gln Lys
117 145          150          155          160
118 Arg Lys Met Val Ala Leu Glu Asn Gly Lys Lys Glu Val Val Val
119          165          170          175
120 Lys Asp Leu Lys Ile Leu Arg Val Leu Thr Lys Glu Glu Leu Ile Leu
121          180          185          190
122 Lys Met Ile Asp Gly Val Leu Leu Arg Lys Ile Gly Val Asn Ser Gln
123          195          200          205
124 Asn Asp Glu Ser Ser Arg Ser His Ala Ile Leu Asn Ile Asp Leu Lys
125          210          215          220
126 Asp Ile Asn Lys Asn Thr Ser Leu Gly Lys Ile Ala Phe Ile Asp Leu
127 225          230          235          240
128 Ala Gly Ser Glu Arg Gly Ala Asp Thr Val Ser Gln Asn Lys Gln Thr
129          245          250          255
130 Gln Thr Asp Gly Ala Asn Ile Asn Arg Ser Leu Leu Ala Leu Lys Glu
131          260          265          270
132 Cys Ile Arg Ala Met Asp Ser Asp Lys Asn His Ile Pro Phe Arg Asp
133          275          280          285
134 Ser Glu Leu Thr Lys Val Leu Arg Asp Ile Phe Val Gly Lys Ser Lys
135          290          295          300
136 Ser Ile Met Ile Ala Asn Ile Ser Pro Thr Ile Ser Cys Cys Glu Gln
137 305          310          315          320
138 Thr Leu Asn Thr Leu Arg Tyr Ser Ser Arg Val Lys Asn Phe Lys Asn
139          325          330          335
140 Lys Ser Thr Cys Ile Asn Glu Glu Asp Asp Thr Asn Thr Glu Arg Ile
141          340          345          350
142 Ser Ile Leu Asp Ser Lys Gly Ser Glu Met Asn Ala Ser Ser Ile Glu
143          355          360          365
144 Asn Val Val Ile Lys Ser Asn His Leu Leu Ser Asn Asn Asn Asn Asn
145          370          375          380
146 Lys Ile Asn Arg Gly Lys Ile Asn Asp Lys Ile Glu Arg Asn Asn Ile
147 385          390          395          400
148 Leu Lys Asn Lys Ser Phe Asp Lys Pro Arg Glu Gly Phe Thr Ser Thr
149          405          410          415
150 Phe Gly Lys Tyr Ser Ser Leu Asn Asp Ile Asp Lys Ile Lys Lys Asn
151          420          425          430
152 Lys Lys Lys Gly Leu Ile Asn Tyr Lys Ser Thr Leu Tyr Asn Asp Asn
153          435          440          445
154 Thr Ile Asn Lys Lys His Asn Asn Asn Asn Asn Asn Asn Asp Asn
155          450          455          460

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156 Asn Asp Asn Asn Asn Asp Asn Asn Asn Asn Asn Asn Asn Asp Ser Ser
157 465 470 475 480
158 Ser Met Val Asn Asn Met Ile Asn His Met Ile Asn Asn Asn Ile Asn
159 485 490 495
160 Asn Asn Ile Asn Val Asn Asn Asn Asn Asn Asn Asn Asn Asn Asn Asn
161 500 505 510
162 Asn Ser His Asn Asn His Leu Pro Gln Pro Asn Tyr Ala Phe Thr Asp
163 515 520 525
164 Thr Ser Asp Phe Ser Ser Leu Asp Asp Met Asn Cys His Leu Asn Asn
165 530 535 540
166 Asn Asp Lys Ser Ile Phe Leu His Lys Lys Asn Leu Arg Asp Asn Ile
167 545 550 555 560
168 Lys Leu Lys Asn Arg Ser Ser Cys Asp Asn Ile Met Asn Lys Lys Lys
169 565 570 575
170 Asn Asn Leu His Leu Ala Arg His Ser Val Gly Ser Lys Leu Thr Met
171 580 585 590
172 Phe Ser Tyr Asp Pro Gln Lys Asn Lys Asp Asn Thr Phe Phe Lys Ser
173 595 600 605
174 Asn Ile Asn Lys Met Glu Asp Asn Thr Pro Lys Asp Ile Leu Tyr Glu
175 610 615 620
176 Ser Arg Asn Val Ser Asn Met Asn Gly Asn Val Leu Leu Gly Leu Asn
177 625 630 635 640
178 Lys Asn Thr His His Asp Ile Ser Thr Lys Asp Glu Asn His Asn Asp
179 645 650 655
180 Asn Lys Ile Asn Asn Gly Val Ile Asn Ile Ile Asn Asn Ser Asn Val
181 660 665 670
182 Asn Ser Ile Asn Asn Ser Asn Met Asn Ser Ile Asn Asn Ser Asn Met
183 675 680 685
184 Asn Ser Asn Ser Ile Tyr Lys Ser Asn Tyr Asn Ser Asn Gln Ser Ile
185 690 695 700
186 Ser Asp Val Gln Ile Arg Tyr Val Asn Glu Met Asp Thr Ser Asn Lys
187 705 710 715 720
188 Asn Asn Asp Asn Ile Phe Phe Asp Ala Ile Ser Cys Asp Asn Asn Met
189 725 730 735
190 Tyr Pro Asn Ile Thr Asn Asn Asn Asn Asn Asn Asn Asn Asn Asn Asn
191 740 745 750
192 Asn Asn Asn Asn Asn Ile Asp Val Glu Asn Tyr Asn Asn Arg Asp Gly
193 755 760 765
194 Thr Asn Asn Ser Met Lys Leu Tyr Ala Tyr Asn Ser His Asn Leu Phe
195 770 775 780
196 Gln Pro Asp Asn Asn Lys Asn Thr Ser Asn Ile Gln Asn Ile Asn Thr
197 785 790 795 800
198 Asn Lys Asn Asn Gln Asp Gly Asn Val Asn Tyr Ser Met Asn Phe Cys
199 805 810 815
200 His Tyr Asn Leu Asn Asp Lys Asn Tyr Leu Ile Asp Leu Asn Asn Lys
201 820 825 830
202 Glu Gln Lys Asp Lys Asn Ile His Gly Cys Asp Asn Asn Ile Ile Gln
203 835 840 845
204 Asn Arg Asn Asp Phe Glu Lys Lys Lys Lys Thr Asn Phe Tyr Asn Asn

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205	850				855				860							
206	Asn	Asn	Ile	Val	Ile	Val	Asn	Asn	Asn	Met	Gly	Asn	Asn	Asn	Ser	Pro
207	865					870					875					880
208	Arg	Met	Lys	Tyr	Gly	Leu	Cys	Gly	Ser	His	Thr	Ser	Ile	Asp	Asn	Met
209					885					890						895
210	Lys	Asn	Asn	Glu	Met	Lys	Asn	Asn	Glu	Met	Lys	Asp	Asn	Glu	Met	Lys
211				900					905					910		
212	Asp	Asn	His	Ile	Lys	Ser	Asn	Asn	Asn	Asn	Ser	Ser	Ser	Ser	Ser	Ser
213			915					920					925			
214	Ser	Asn	Asn	Asn	Ile	Tyr	Asn	Asn	Ile	Asn	Asp	Asp	Asp	Thr	Phe	Gln
215		930					935					940				
216	Asn	Asp	Tyr	Cys	His	Asn	Asp	Asn	Thr	Phe	Thr	Ile	Arg	Arg	Lys	Asn
217	945				950						955					960
218	Asn	Thr	Asn	Ile	Asn	Ser	Asn	Ile	Tyr	Gln	Asn	Asp	Asp	Ile	Ile	Tyr
219				965					970						975	
220	Thr	Ile	Asn	Ser	Leu	Asn	Asp	Tyr	Met	Ser	Asn	Thr	Leu	Leu	His	Phe
221			980					985						990		
222	Lys	Glu	Lys	Tyr	Thr	Tyr	Pro	Thr	Leu	Ser	Thr	Asn	Glu	Asp	Ile	Tyr
223			995					1000					1005			
224	Asn	Lys	Glu	Met	Glu	Gly	Lys	His	Ile	Arg	Leu	Asp	Asp	Gln	Asp	Lys
225		1010				1015					1020					
226	Tyr	Asp	Asp	Asn	Asp	Asn	Asn	Asn	Val	Asp	Asn	Asn	Asn	Lys	Asn	Asn
227	1025				1030				1035							1040
228	Val	Asp	Asn	Asn	Val	Asp	Asn	Asn	Asn	Val	Asp	Asn	Asn	Val	Asp	Asn
229				1045					1050						1055	
230	Asn	Asp	Lys	Asn	Asn	Val	Asp	Asn	Asn	Asn	Val	Asp	Asn	Asp	Asp	Asp
231			1060					1065						1070		
232	Asp	Val	Asp	Phe	His	Asn	Ile	Lys	Asn	Phe	Asn	Asn	Asn	Glu	Tyr	Leu
233			1075				1080					1085				
234	Ser	Tyr	Phe	Gln	Lys	Asn	Val	Asp	Thr	Ile	Ile	Asn	Asn	Cys	Leu	Asn
235		1090				1095						1100				
236	Ser	Leu	Asp	Ile	Ser	Ser	Met	Tyr	Asp	Asp	Thr	Lys	Glu	Ile	Leu	Asn
237	1105				1110					1115						1120
238	Asn	Ile	Leu	Leu	Ser	Lys	Tyr	Lys	Ala	Glu	Lys	Asp	Asn	Val	Ile	Lys
239				1125					1130						1135	
240	Lys	Tyr	Ile	Asn	Glu	Asp	Ile	Lys	Asn	Met	Ser	Leu	Glu	Glu	Ile	Asp
241			1140					1145						1150		
242	Lys	Thr	Ala	Gln	Ser	Ile	Tyr	Glu	Lys	Arg	Lys	Val	Leu	Leu	Thr	Lys
243			1155					1160					1165			
244	Leu	Leu	Leu	Leu	Phe	Lys	Lys	Asn	Val	Asp	Thr	Gln	Ile	Asn	Asn	Glu
245		1170				1175						1180				
246	Thr	Ser	Asp	Leu	Arg	Lys	Asp	Leu	Val	Met	Cys	His	Ile	Cys	Asn	Asn
247	1185				1190					1195						1200
248	Asn	Pro	Asp	Asp	Gln	Phe	His	Phe	Tyr	Ala	Tyr	Ser	Arg	Leu	Glu	Lys
249				1205					1210						1215	
250	Asp	Ile	Ile	Asn	Leu	Ile	Met	Leu	Arg	Gln	Ile	Trp	Cys	Glu	Ser	Glu
251			1220					1225						1230		
252	Asn	Leu	Arg	Leu	Leu	Tyr	Gln	Phe	Leu	Val	Val	Glu	Tyr	Gln	Asn	Lys
253			1235					1240						1245		

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/006,780

DATE: 12/14/2001

TIME: 11:08:11

Input Set : A:\Seqlist.txt

Output Set: N:\CRF3\12142001\I006780.raw

L:15 M:270 C: Current Application Number differs, Replaced Current Application No

L:15 M:271 C: Current Filing Date differs, Replaced Current Filing Date